



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0927; Directorate Identifier 2013-NM-172-AD]

RIN 2120-AA64

Airworthiness Directives; Zodiac Aerotechnics (Formerly Intertechnique Aircraft Systems)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators as installed on, but not limited to, various transport and small airplanes. This proposed AD was prompted by a report that improper maintenance on oxygen mask regulators was found. This proposed AD would require the identification and replacement of all potentially affected units. This proposed AD also would require installation of a placard and revision of the airplane flight manual to include an operational procedure for use in case of depressurization. We are proposing this AD to detect and correct affected oxygen mask regulators, which could lead to inadequate protection to the affected flightcrew against hypoxia. Hypoxia can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in terms of airplane controllability.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Zodiac Services, Technical Publication Department, Zodiac Aerotechnics, Oxygen Systems Europe, 61 Rue Pierre Curie - CS20001, 78373 Plaisir Cedex, France; phone: (33) 01 61 24 23 23; fax: (33) 01 30 55 71 61; email: yann.laine@zodiacaerospace.com; Internet: <http://www.zodiacaerospace.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0927; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations

office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Ian Lucas, Aerospace Engineer, Boston Aircraft Certification Office (ACO) ANE-150, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7757; fax: 781-238-7170; email: ian.lucas@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-0927; Directorate Identifier 2013-NM-172-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2012-0254R1, dated December 21, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

In a repair station, improper maintenance on [flightcrew] oxygen mask regulators was reported to Inter technique: during an inspection of the oxygen test bench by its manufacturer, incorrect settings were noticed. This test bench setting discrepancy on the oxygen mask regulator could cause an improper mask dilution schedule.

This condition, if not detected and corrected, could lead, in case of a diversion above 10,000 feet after a depressurization event, to the inhalation of air with improper content of oxygen, due to the bad dilution settings, thereby providing inadequate protection to the affected flightcrew member against hypoxia, which can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in term of aeroplane controllability.

For the reasons described above, this [EASA] AD requires the identification and replacement of all potentially affected units. This [EASA] AD also requires installation of a placard and [a revision to the airplane flight manual to include] * * * an operational procedure [in case of depressurization] pending replacement of the affected units.

* * * * *

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2015-0927.

Related Service Information under 1 CFR part 51

Zodiac Services has issued Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012. The service information describes procedures for the identification and replacement of all potentially affected units. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA’s Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 13 appliances installed on, but not limited to, various transport and small airplanes of U.S. registry.

We also estimate that it would take about 3 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$225 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$6,240, or \$480 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems): Docket No.

FAA-2015-0927; Directorate Identifier 2013-NM-172-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Zodiac Aerotechnics (formerly Intertechnique Aircraft Systems) flightcrew oxygen mask regulators having part number MC10, MF10, and MF20 series, with serial numbers listed in Appendix 1 of Zodiac Services Service Bulletin MCF-SBU-35-001, Revision 01, dated December 3, 2012. These oxygen mask regulators are installed on various transport and small airplanes, certificated in any category, including, but not limited to, the airplanes of the manufacturers specified in paragraphs (c)(1), (c)(2), (c)(3), (c)(4), (c)(5), (c)(6), and (c)(7) of this AD. An oxygen mask regulator having part number MC10-04-127 with serial number 48573 is affected only if it is part of part number MSE101-27 with serial number 7521.

(1) Airbus.

(2) ATR – GIE Avions de Transport Régional.

- (3) The Boeing Company.
- (4) Bombardier, Inc.
- (5) Cessna Aircraft Company.
- (6) Gulfstream Aerospace Corporation.
- (7) Gulfstream Aerospace LP.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire Protection.

(e) Reason

This AD was prompted by a report that improper maintenance on oxygen mask regulators was found. During an inspection of the oxygen test bench, incorrect settings were noticed. This test bench setting discrepancy on the oxygen mask regulator could cause an improper mask dilution schedule. We are issuing this AD to detect and correct affected oxygen mask regulators, which could lead, in case of mask usage at or above 10,000 feet after a depressurization event, to the inhalation of air with improper content of oxygen, due to the bad dilution settings, thereby providing inadequate protection to the affected flightcrew against hypoxia. Hypoxia can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in terms of airplane controllability.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

Within 30 days after the effective date of this AD, inspect each flightcrew oxygen mask regulator to identify the part number and serial number, in accordance with the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012. A review of airplane maintenance records is

acceptable to make the determination as specified in this paragraph, provided those records can be relied upon for that purpose, and each flightcrew oxygen mask regulator can be conclusively identified from that review.

(h) Action for Affected Regulators

If the part number and serial number, identified as required by paragraph (g) of this AD, are listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012, within 30 days after the effective date of this AD, accomplish the actions specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Replace each affected flightcrew oxygen mask regulator with a part identified in paragraph (h)(1)(i) or (h)(1)(ii) of this AD.

(i) A serviceable part, not having a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(ii) A part that has been tested and passed the test in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012

(2) Do the actions specified in paragraphs (h)(2)(i) and (h)(2)(ii) of this AD.

(i) Revise the Emergency Procedures section of the airplane flight manual (AFM) by inserting the statement provided in figure 1 to paragraph (h)(2)(i) of this AD. This may be done by inserting a copy of figure 1 to paragraph (h)(2)(i) of this AD into the AFM.

Figure 1 to paragraph (h)(2)(i) of this AD

In case of depressurization, both pilots must use the mask regulator on 100% demand or Emergency mode only.

Note 1 to paragraph (h)(2)(i) of this AD: For oxygen over-consumption, refer to applicable airplane type certificate holder limitations, if existing, depending on the airplane configuration and/or flight plan.

Note 2 to paragraph (h)(2)(i) of this AD: It is the operators' responsibility to assess the operational consequences of the oxygen over-consumption and ensure that the operational requirements with regard to supplemental oxygen and crew protective breathing equipment are still done. Operators are expected to amend, as applicable, their operations manual(s) accordingly.

(ii) Fabricate and install a placard on the flightcrew oxygen mask container that states: "USE SELECTOR on "100%" OR "EMERGENCY" ONLY."

(i) Regulator Replacement

Within 12 months after the effective date of this AD, unless already accomplished as specified in paragraph (h)(1) of this AD, replace each affected flightcrew oxygen mask regulator identified in paragraph (h) of this AD with a part identified in paragraph (i)(1) or (i)(2) of this AD. After replacement of all affected flightcrew oxygen mask regulators on an airplane, the actions specified in paragraph (h)(2) of this AD are no longer required, the AFM revision specified in paragraph (h)(2)(i) of this AD may be removed from the AFM, and the placard identified in paragraph (h)(2)(ii) of this AD may be removed from the airplane.

(1) A serviceable part, not having a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(2) A part that has been tested and passed the test in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(j) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g), (h)(1)(ii), and (i)(2) of this AD, if those actions were performed before the effective date of this AD using Zodiac Aerospace Service Bulletin MCF-SBU-35-001, dated October 25, 2012, which is not incorporated by reference in this AD.

(k) Parts Installation Limitation

As of the effective date of this AD, no person may install any flightcrew oxygen mask regulator with a part number and serial number listed in Appendix 1 of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012, on any airplane, unless the regulator has been tested and passed the test, in accordance with paragraph 3.A.(4) of the Accomplishment Instructions of Zodiac Aerospace Service Bulletin MCF-SBU-35-001, Revision 1, dated December 3, 2012.

(l) Alternative Methods of Compliance (AMOCs)

The Manager, Boston Aircraft Certification Office (ACO) ANE-150, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Ian Lucas, Aerospace Engineer, Boston Aircraft Certification Office (ACO) ANE-150, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7757; fax: 781-238-7170; email: ian.lucas@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2012-0254R1, dated December 21, 2012, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2015-0927.

(2) For service information identified in this AD, contact Zodiac Services, Technical Publication Department, Zodiac Aerotechnics, Oxygen Systems Europe, 61 Rue Pierre Curie - CS20001, 78373 Plaisir Cedex, France; phone: (33) 01 61 24 23 23; fax: (33) 01 30 55 71 61; email: yann.laine@zodiacaerospace.com; Internet: <http://www.zodiacaerospace.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 10, 2015.

Jeffrey E. Duven,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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